

## PAPER

# DEGRADATION KINETICS OF TOTAL PHENOLS, ANTHOCYANINS AND ANTIRADICAL ACTIVITY OF BLACKCURRANT NECTARS STORED AT ROOM AND REFRIGERATOR TEMPERATURES

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## ABSTRACT

Total phenol (TP) and total anthocyanin (TA) contents as well as 2,2-diphenyl-1-picrylhydrazyl (DPPH) antiradical activity (AA) were monitored during storage of three industrial blackcurrant nectars and one blackcurrant-aronia mix at two temperatures (4° and 22°C) for 10 days. Severe loss in the TP and TA contents and a substantial loss in the AA were observed in blackcurrant nectars stored at both temperatures. The thermal degradation of TP, TA and AA followed first-order reaction kinetics. The kinetic constants of anthocyanin degradation were higher at 22°C, while the constants for AA degradation were not significantly different at 22° and 4°C.

- Keywords: anthocyanins, blackcurrant, degradation kinetics, DPPH antiradical activity, temperature effects, total phenols -